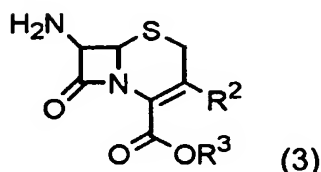
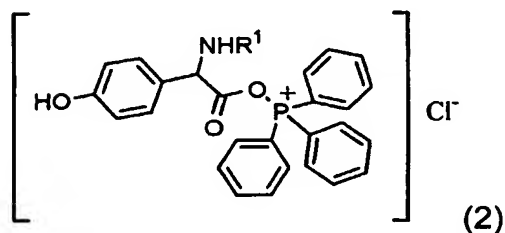
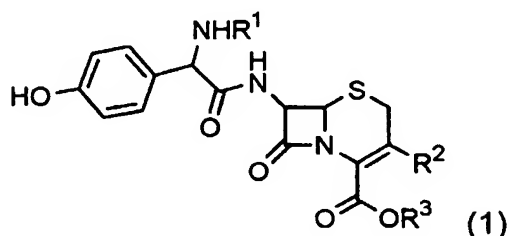


## CLAIMS

1. A process for preparing a compound represented by the following formula 1 or its salt, which comprises reacting a compound represented by the following formula 2 with a compound represented by the following formula 3 in the presence of a base:



wherein R¹ is a hydrogen or an amino protecting group, R² is methyl, propen-1-yl, or 1H-1,2,3-triazole-4-yl-thiomethyl, and R³ is a hydrogen or a carboxyl protecting group.

2. The process of claim 1, wherein the compound of the formula 2 is an anhydride form.

3. The process of claim 1, wherein the compound of the formula 2 reacts with the compound of the formula 3 at an equivalent ratio of 1.1-1.5 to 1.

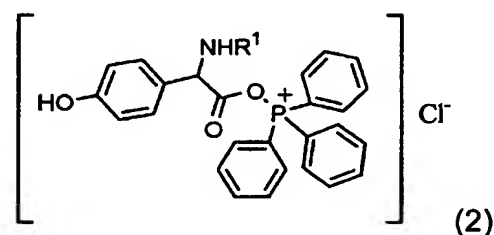
4. The process of claim 1, wherein the compound of the formula 2 reacts with the compound of the formula 3 in a mixed solvent of water with an organic solvent

selected from the group consisting of dimethylsulfoxide, dimethylformamide, dimethylacetamide, 1,4-dioxane, acetonitrile, dichloromethane, and a mixture thereof.

5 5. The process of claim 4, wherein in the mixed solvent, water is used in an amount of 0.05 to 0.3 parts by weight, based on 1 part by weight of the organic solvent.

6. The process of claim 1, wherein the base is selected from the group consisting of N-methylmorpholine, triethylamine, diethylamine, n-tributylamine, N,N-dimethylaniline, and pyridine.

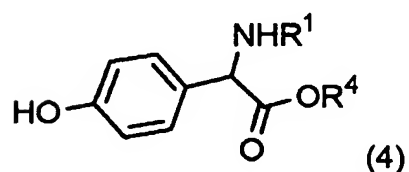
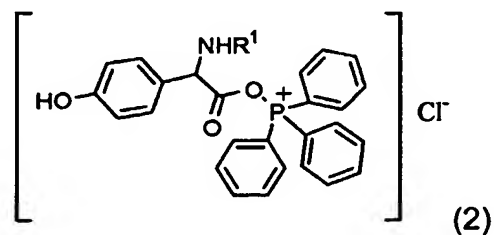
10 7. A compound represented by the following formula 2:



wherein R¹ is a hydrogen or an amino protecting group.

15 8. The compound of claim 7, which is an anhydride form.

9. A process for preparing a compound represented by the following formula 2, which comprises reacting a compound represented by the following formula 4 with dichlorotriphenylphosphorane in the presence of a base:



wherein  $R^1$  is a hydrogen or an amino protecting group, and  $R^4$  is hydrogen, sodium, or potassium.

10. The process of claim 9, wherein the compound of the formula 4 reacts  
5 with dichlorotriphenylphosphorane at an equivalent ratio of 1 to 1.1-1.5.

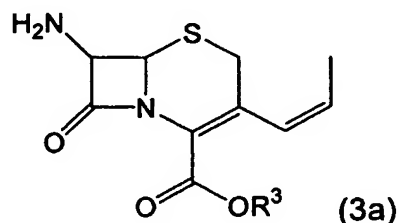
11. The process of claim 9, wherein the compound of the formula 4 reacts  
with dichlorotriphenylphosphorane in an organic solvent selected from the group  
consisting of dichloromethane, acetonitrile, tetrahydrofuran, and a mixture thereof.

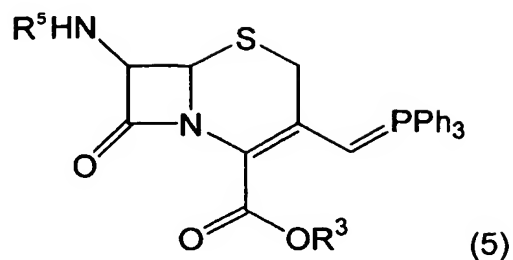
12. The process of claim 9, wherein the base is selected from the group  
consisting of triethylamine, diethylamine, n-tributylamine, N,N-dimethylaniline, and  
pyridine.

13. The process of claim 9, wherein dichlorotriphenylphosphorane is obtained  
by reaction between triphenylphosphine and hexachloroethane.

14. The process of claim 13, wherein the reaction of triphenylphosphine and  
hexachloroethane and the reaction of the compound of the formula 4 and  
dichlorotriphenylphosphorane in the presence of a base are performed by one-pot  
reaction.

15. A process for stereospecifically preparing a compound represented by the  
following formula 3a, which comprises a compound represented by the following  
formula 5 with acetaldehyde in a mixed solvent comprising water, isopropanol, and  
methylenechloride in a volume ratio of 1:3-6:11-14 in the presence of a base:





wherein  $R^3$  is a hydrogen or a carboxyl protecting group, and  $R^5$  is a hydrogen or an amino protecting group.

- 5            16.    The process of claim 15, wherein in the mixed solvent, water, isopropanol, and methylenechloride have a volume ratio of 1:4:12.